# Does manipulating age in earliest memories affect narratives more than snapshots?

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## Introduction

- Adults' relative inability to recall early childhood experiences is referred to as **childhood amnesia**.
- It is generally assumed that age estimates of early memories are **accurate**, with an average age of 3.5 years *(Wang & Peterson, 2014)*.
- Yet, estimating age may be a **reconstructive process** depending on context. Previous work shows that age-information in the experimental set-up affects reported age (e.g., *Kingo, Bohn & Krøjgaard, 2013*)
- Especially **narrative memories** may be sensitive to age information (*Wessel, Schweig & Huntjens, 2016*).

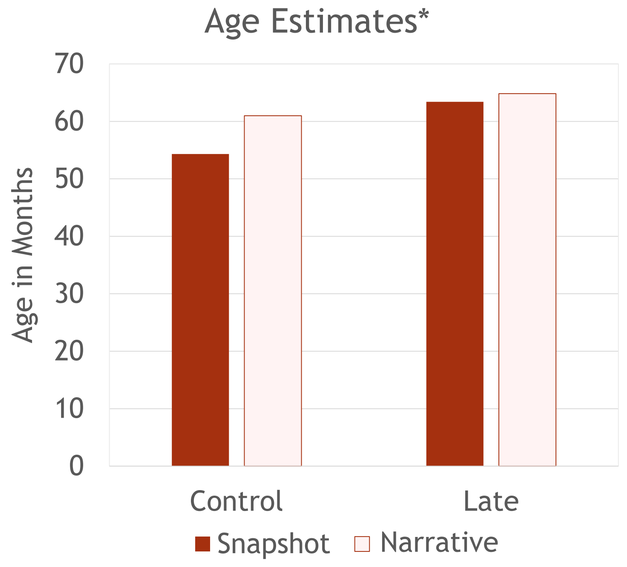
### Narrative vs snapshot memories

**Narrative** memories have a **story-like** structure, with a beginning and an end and a sequence of events in temporal order.

**Fragment / Snapshot** memories are **isolated** scenes, decontextualized pieces of information, without a temporal order.

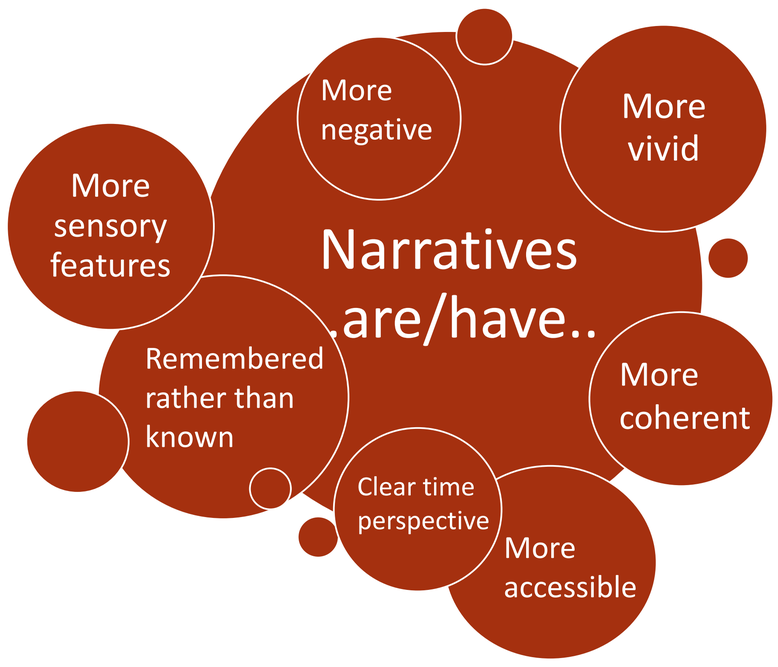
*(Cf. Bruce et al., 2005)*

## Results




- The late condition reported higher age estimates than the control condition ($F(1, 356) = 12.70$, $p < .001$, $\eta p2 = .035$).
- The narrative condition reported higher age estimates than the snapshot condition ($F(1, 356) = 4.94$, $p = .027$, $\eta p2 = .014$).
- No significant interaction emerged ($F(1, 356) = 2.07$, $p = .151$, $\eta p2 = .006$).
- An analysis limited to memories that were snapshots or narratives according to **experimenter ratings** yielded similar results.

### Compared to snapshots…




** Students who learned their age from an external source (e.g., parents, photos) were excluded from the age estimate analysis, leaving n = 357.*

## Aims

- Replicate Wessel et al.'s (2016, study 1) finding that a late age prime renders higher ages in earliest narrative memories than in snapshots
- Explore how narrative and snapshot memories differ in terms of autobiographical memory characteristics

## Method

**Participants:** 465 college and university students with a Western cultural background

**Design:** 2 (age prime) x 2 (memory type), between participants

**Material**: Online Questionnaire

- Primes were vignettes, containing
  - Age 6-8 (Late) or no age (Control)
  - A fragment/snapshot or narrative structure
- Describe earliest fragment or narrative memory
- Date memory
- Memory Experiences Questionnaire – Short form (MEQ-sf; *Luchetti & Sutin, 2016*) plus additional characteristics (*Bruce et al., 2005*)

## Primes- Examples

**Late / Narrative:**
*I remember myself being in the pool with my dad. We went down the waterslide together. We went really fast. I really liked it and we must have gone down the slide ten times or more. Afterwards we played with a ball. My mum was there too.* ***I wasn't wearing any floaties, so I must have been seven or eight years old.*** *I still like going to the pool.*

**Control / Snapshot**:
*I remember myself being on top of a waterslide. Someone else was there but I can't remember who it was. The slide was white and green and there were bright lights around us.* ***There were big glass windows, so it must have been an indoor pool.*** *I don't know which swimming pool it was.*

## Conclusions

- Including a relatively **late age** in the instructions for retrieving an earliest memory rendered **higher age estimates** than no age information (cf. Wessel et al., 2016).
- Age in **snapshot memories** was **younger** than in narrative memories (cf. Bruce et al., 2005).
- Contrary to earlier findings (Wessel et al., 2016) the present findings suggest that age primes do **not differentially affect** age estimates in snapshots and narratives.
- Narrative memories differed from snapshot memories on the **majority of characteristics** as measured by the MEQ. The memory types did not differ with respect to intensity of emotion, duration, rehearsal and observer/field perspective.
- All in all, the results add to the evidence that the estimated age in memories of early childhood experiences can be affected by external circumstances. This has implications for **legal cases** in which early childhood memories play a role.

## Literature

Bruce, D., Wilcox-O'Hearn, L. A., Robinson, J. A., Phillips-Grant, K., Francis, L., & Smith, M. C. (2005). Fragment memories mark the end of childhood amnesia. *Memory & Cognition*, *33*(4), 567-576. doi:10.3758/BF03195324

Kingo, O. S., Bohn, A., & Krøjgaard, P. (2013). Warm-up questions on early childhood memories affect the reported age of earliest memories in late adolescence. *Memory*, 21(2), 280-284. doi:10.1080/09658211.2012.729598

Luchetti, M. & Sutin, A.R. (2016). Measuring the phenomenology of autobiographical memory: A short form of the Memory Experiences Questionnaire, *Memory*, 24(5), 592-602. doi: 10.1080/09658211.2015.1031679

Wang, Q., & Peterson, C. (2014). Your earliest memory may be earlier than you think: Prospective studies of children's dating of earliest childhood memories. *Developmental Psychology*, *50*(6), 1680-1686. doi:10.1037/a003600

Wessel, I., Schweig, T., & Huntjens, R. (2016, July). *Manipulating age in earliest memories*. Paper presented at ICOM-6, Budapest, Hungary.

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